IN THE CLAIMS

Please amend the Claims as follows.

1. (Currently Amended) Device for determining the density of an electrolyte (4) with at least two immersion tubes (9, 10, 44) submerged with an open tube opening (52) at different depths into the electrolyte (4), which can be filled with gas up to an assigned depth (21, 22, 48) and have a fixed gas depth difference (d), and with at least one pressure sensor (16) for determining the pressure difference in the immersion tubes (9, 10, 44), wherein a voltage source (5, 35) is connected to ~~the~~ electrodes (11, 19, 45) ~~is~~ arranged in the immersion tubes (9, 10, 44), with which gas can be generated upon contact with the electrolyte (4) for filling the immersion tubes (9, 10, 44) up to the corresponding gas depth (21, 22, 48).

2. (Original) Device according to claim 1, wherein the immersion tubes (9, 10, 44) are vertically aligned and the corresponding electrode (11, 19, 45) has an immersion depth which essentially coincides with the gas depth (21, 22, 48) of the corresponding immersion tube (11, 19, 45).

3. (Currently Amended) Device according to claim 1, wherein electrode connecting lines (12, 20, 46) are provided for connecting the electrodes (11, 19, 45), which electrode connecting lines are surrounded by an acid resistant insulation (49), to the electric voltage source (5, 35).

4. (Previously Presented) Device according to claim 3, wherein the corresponding electrode connecting line (12, 20, 46) consists of an elastic material and has a waved wire structure in the transverse direction, so that pressure forces can be generated in a stretched position via spring forces which set in on an inner wall of the corresponding immersion tube (9, 10, 44) for holding the corresponding electrode (11, 19, 45).

5. (Original) Device according to claim 3, with an electrode fixture (59) made of plastic arranged in the interior of the corresponding immersion tube (9, 10, 44), which has radially running transverse struts (60) and a circular section (61) connected with the transverse

struts (60) for guiding through the corresponding electrode connecting line (12, 20, 46), wherein the circular section (61) is fixedly connected with the electrode connecting line (12, 20, 46) and the length of the transverse struts (60) is adapted to the inner diameter of the corresponding immersion tube (9, 10, 44) in such a way that when the immersion tube (9, 10, 44) is in its inserted position, the holding forces necessary for fixing the corresponding electrode (11, 19, 45) can be generated.

6. (Original) Device according to claim 3, wherein a gas-tight insertable mounting headpiece (63) is provided, which can be inserted gas-tight on the tube opening (52) of the corresponding immersion tube (9, 10, 44), which has a gas outlet opening (66) on its beveled end facing away from the corresponding immersion tube (9, 10, 44) as well as a fixing area (65) fixedly connected to the corresponding electrode (11, 19, 45).

7. (Original) Device according to claim 3, wherein the immersion tubes (9, 10, 44) have beveled tube openings (52) to simplify the release of escaping gas bubbles.

8. (Original) Device according to claim 3, wherein the immersion tubes (9, 10, 44) have a lateral passage opening (53) to simplify the release of escaping gas bubbles.

9. (Original) Device according to claim 3, wherein the immersion tubes (9, 10, 44) have a lateral grooving (55) to simplify the release of escaping bubbles.

10. (Previously Presented) Device according to claim 3, wherein the corresponding immersion tube (9, 10, 44) is gas-tight connected at its end facing away from the electrolyte (4) with a connecting nozzle (68), which is made of plastic and has a line entry (69) arranged on its side wall for the gas-tight introduction of the corresponding electrode connecting line (12, 20, 46).

11. (Previously Presented) Device according to claim 3, wherein the corresponding immersion tube (9, 10, 44) is gas-tight connected with a connecting nozzle (68) on its side facing away from the electrolyte (4), which has an at least average electrically conducting side wall (68,

72), on whose exterior and interior is conductively attached the corresponding electrode connecting line (12, 20, 46).

12. (Previously Presented) Device according to claim 3, wherein the electrodes (11, 19, 45), which are submerged into an aqueous electrolyte solution (4), are made of a material with a low hydrogen surge and are connected to an accumulator electrode (5) of an accumulator (1), which is negative in its charged position.

13. (Previously Presented) Device according to claim 3, with a DC-DC converter (35), which is arranged for converting a DC voltage decreasing between two accumulator electrodes (5, 6) into a higher DC voltage and, which is arranged for applying the increased voltage on the electrodes (11, 19, 45), on the one hand, and, on the other hand, on an opposite electrode (40), wherein the opposite electrode (40) is surrounded by a microperforated sleeve tube (43).

14. (Original) Device according to claim 13, wherein the electrodes (11, 19, 45) are submerged into an aqueous electrolyte solution and are negatively charged with respect to the electrochemical hydrogen gas formation with respect to the opposite electrode (40).

15. (Original) Device according to claim 13, wherein the electrodes (11, 19, 45) are submerged into an aqueous electrolyte solution and are positively charged with respect to the opposite electrode (40) for the electrochemical oxygen gas formation.

16. (Previously Presented) Device according to claim 14, wherein the electrodes (11, 19, 45) and the correspondingly assigned electrode connecting lines (12, 20, 46) are configured as one piece and are made of the same material.

17. (Original) Device according to claim 3, wherein the corresponding electrode connecting line (12, 20, 46) is made of copper or graphite, and is connected to the corresponding electrode (11, 19, 45) by means of a soldering or welding seam (50).

18. (Original) Device according to claim 3, wherein the corresponding electrode (11, 19, 45) is configured as a layer of an end area of the corresponding electrode connecting line (12, 20, 46), whose coated section is enclosed by an acid-resistant insulation (49).

19. (Previously Presented) Device according to claim 3, wherein the corresponding electrode (11, 19, 45) is configured as a coating of an end area of the inner wall of the corresponding immersion tube (9, 10, 44), to which is electrically conductively connected a coating acting as an electrode connecting line (12, 20, 46).

20. (Previously Presented) Device according to claim 1, comprising a temperature sensor (8) submerged in the electrolyte (4), wherein the temperature sensor (8) and the or each pressure sensor (16, 47) is connected for digitalizing measurement signals to a data processing (25), which is connected via a data bus (27) to a microcontroller (26) for calculating the charge state from the measured acid density of the accumulator (1).

21. (Previously Presented) Device according to claim 1, wherein two immersion tubes (9, 10) have different diameters, wherein the first immersion tube (9) extends at least partially into the second immersion tube (10).

22. (Currently Amended) Device according to claim 13, which has an elastic outer hose (58), which encompasses as a support two immersion tubes (9, 10), the sleeve tube (43), a ~~the~~ temperature sensor (8), and a temperature measuring line (23).

23. (Currently Amended) Device according to claim 13, wherein a plurality ~~any desired number~~ of immersion tubes (9, 10, 44) and a number of pressure sensors (16, 47), which is one less than the number of immersion tubes, is provided for measuring the pressure difference between the immersion tubes (9, 10, 44) of an immersion tube pair, wherein the immersion tube pairs assigned to the pressure sensors (16, 47) delimit with their corresponding gas depths (21, 22, 48) layers of the electrolyte (4) at different depths, so that the measured data supplied by the pressure sensors (16, 47) can be assigned to the layers.

24. (Currently Amended) Device according to claim 2 ~~3~~, wherein the corresponding electrode connecting line (12, 20, 46) comprises an elastic material and has a waved wire structure in the transverse direction, so that pressure forces can be generated in a stretched position via spring forces which set in on an inner wall of the corresponding immersion tube (9, 10, 44) for holding the corresponding electrode (11, 19, 45).

25. (Previously Presented) Device according to claim 14, wherein the electrodes (11, 19, 45) and the correspondingly assigned electrode connecting lines (12, 20, 46) are configured as one piece and are made of lead.

26. (Currently Amended) Device according to claim 20, which has an elastic outer hose (58), which encompasses as a support two immersion tubes (9, 10), a ~~the~~ sleeve tube (43), the ~~a~~ temperature sensor (8), and a temperature measuring line (23).